

2003 AFCEE Technology Transfer Workshop, Brooks Club, Brooks City-Base

Short Courses

	Monday, 24 February 2003, AM Session (0800 – 1200 Hours)							
Room	Room 1		Ballroom		Dining Room		Room 2	
Session	Successful Demonstration of Monitored Natural Attenuation (MNA) Using AFCEE's Software Tools		Bioventing Design, Evaluation, and Training		Approaches to Long-term Monitoring / Long-term Optimization (LTM/LTO) - Strategies, Case Studies, and Guidance		Hands-on Training of Site Characterization, Monitoring, and Remediation Tools (First Offering)	
Chair	Chuck Newell, Groundwater Services, Inc.		Patrick Haas, Mitretek Systems, Inc.		Phil Hunter, AFCEE/ERS		Jerry Hansen, AFCEE/ERS	
0800 – 0830	Making Better MNA Demonstrations: Applying AFCEE's Software Tools	Charles J Newell, Groundwater Services, Inc.	Bioventing Design, Evaluation, and Training	Patrick Haas, Mitretek Systems, Inc.	Session Introduction	Philip Hunter, AFCEE/ERS	Session Introduction and Layout	Jerry Hansen, AFCEE/ERS
0830 – 0900					Overview of LTM Optimization at AF Facilities			
0900 – 0930					Application of Expanded GTS Algorithm to Air Force Plant 6	Kirk Cameron, MacStat Consulting, Ltd.	Demonstrating the Diffusion Bag Sampling Techniques	Rafael Vazquez, AFCEE/ERS
0930 – 1000					Optimization of Groundwater Pump-and-Treat Systems	Dave Becker, US Army Corps of Engineers; Barbara Minsker, University of Illinois	Hands-on Field Demonstrations	Jerry Hansen, AFCEE/ERS; Don Kampbell, US EPA
1000 – 1030	BREAK							
1030 – 1100	Making Better MNA Demonstrations: Applying AFCEE's Software Tools CONTINUED	Charles J Newell, Groundwater Services, Inc.	Bioventing Design, Evaluation, and Training CONTINUED	Patrick Haas, Mitretek Systems, Inc.	Optimization of Long-Term Groundwater Monitoring	Barbara Minsker, University of Illinois	Hands-on Field Demonstrations CONTINUED	Jerry Hansen, AFCEE/ERS; Don Kampbell, US EPA
1100 – 1130					Monitoring and Remediation Optimization System (MAROS) Software	Julia Aziz, Groundwater Services, Inc.		
1130 – 1200					Simulation / Optimization Modeling Tools for Pump and Treat	Richard Peralta, Utah State University		
1200 - 1330	LUNCH							

**2003 AFCEE Technology Transfer Workshop, Brooks Club, Brooks City-Base
Short Courses, Continued**

	Monday, 24 February 2003, PM Session (1330 – 1700 Hours)														
Room	Room 1		Dining Room		Ballroom		Room 2								
Session	Health and Environmental Risk Communication		Free Product Recovery – A Strategic Approach to Evaluating the Feasibility and the Best Methods of LNAPL Recovery		Achieving Data Quality Excellence (QAPPs, Performance Evaluation Samples, Laboratory Audits, and ERPIMS)		Hands-on Training of Site Characterization, Monitoring, and Remediation Tools (Second Offering)								
Chair	Cornell Long, AFIERA		Patrick Haas, Mitretek Systems, Inc.		Maj Will Kingdon, AFCEE/ERS		Jerry Hansen, AFCEE/ERS								
1330 - 1335	Session Introduction	Cornell Long, AFIERA	Free Product Recovery – A Strategic Approach to Evaluating the Feasibility and the Best Methods of LNAPL Recovery	Patrick Haas, Mitretek Systems, Inc.	Session Introduction	Maj Will Kingdon, AFCEE/ERS	Session Introduction and Layout	Jerry Hansen, AFCEE/ERS							
1335 – 1400	Health and Environmental Risk Communication	Cornell Long & Brian Howard, AFIERA; Keith Fulton, Fulton Communications			Web-Based ERPIMS Applications and You	Bill Batschelet, AFCEE/ERS			Demonstrating the Diffusion Bag Sampling Techniques	Rafael Vazquez, AFCEE/ERS					
1400 – 1430					AFCEE Laboratory Quality Programs; AFCEE QAPP; PE Samples; and Laboratory Audits	Burt Harrison & Ed Brown, AFCEE/ERS	Hands-on Field Demonstrations	Jerry Hansen, AFCEE/ERS; Don Kampbell, US EPA							
1430 - 1500															
1500 – 1530	BREAK														
1530 – 1600	Health and Environmental Risk Communication	Cornell Long & Brian Howard, AFIERA; Keith Fulton, Fulton Communications	Free Product Recovery – A Strategic Approach to Evaluating the Feasibility and the Best Methods of LNAPL Recovery	Patrick Haas, Mitretek Systems, Inc.	AFCEE Laboratory Quality Programs; AFCEE QAPP; PE Samples; and Laboratory Audits	Burt Harrison & Ed Brown, AFCEE/ERS	Hands-on Field Demonstrations	CONTINUED							
1600 – 1630															
1630 – 1700									CONTINUED						
1700	WORKSHOP ADJOURNS FOR THE DAY														

2003 AFCEE Technology Transfer Workshop, Four Points Sheraton Hotel

Tuesday, 25 February 2003, AM Session (0800 – 1130 Hours)	
0715 – 0755	Morning Coffee, Rapids Terrace
Room	Coronado Ballroom
Session	Plenary Session
Moderator	<i>Jim Gonzales, AFCEE/ERS</i>
0800 - 0805	Opening Remarks & Workshop Logistics Maj Darrin Curtis, Chief, Science and Engineering Division, AFCEE
0805 – 0815	Welcome from AFCEE Director Mr Gary Erickson, Director, HQ AFCEE
0815 – 0830	Team Member Awards Mr Gary Erickson (Kay Grosinske, Award Citations)
0830 – 0845	Conference Overview and Technology Program Review Mr Jim Gonzales, Technical Assistant, Science and Engineering Division
0845 - 0910	Environmental Policy Mr Jeff Domm, Chief, Environmental Quality Branch, AF/ILEVQ
0910 – 0935	Science and Data – How do we know that we have the right data, right, for our decisions? Ms Nancy Wentworth, Director, Quality Staff, US Environmental Protection Agency
0935 – 1000	BREAK, Coronado Ballroom
1000 – 1025	The Time is Now! Moving from the Bench to the Performance! Mr Albert Lowas, Air Force Real Property Agency
1025 – 1050	A Workable Definition of a Success Dr John Wilson, Office of R&D, US EPA
1050 – 1120	Connections Between Resource Capability, Readiness, and Environmental Stewardship Ms Maureen Koetz, SAF/IEE
1120 – 1130	Questions and Answers for the Plenary Session Speaker Panel Maj Darrin Curtis (Moderator)
1130 – 1300	Lunch Provided Rio Grande Ballroom and Rapids Terrace Four Points Sheraton Hotel

2003 AFCEE Technology Transfer Workshop, Four Points Sheraton Hotel

Tuesday, 25 February 2003, PM Session (1300 – 1700 Hours)

Room	Santa Fe		Taos		Pecos	
Session	The Challenge of Source Zone Remediation		Taking Control of the Risk Assessment Process		Case Studies and Design Protocols for Phytoremediation and Alternative Landfill Covers	
Chair	Erica Becvar and Maj Darrin Curtis, AFCEE/ERS		Sam Brock and Jim Montgomery, AFCEE/ERS		Rafael Vazquez, AFCEE/ERS	
1300 – 1325	Evolving Practices for Management of Releases of Recalcitrant Compounds	Tom Sale, Colorado State University	Planning Risk Assessments	Samuel L Brock, AFCEE/ERS	Phytoremediation for Air Force Sites	V L Hauser, Mitretek Systems, Inc.
1325 - 1350	AFCEE Source Zone Initiative - Technical Assistance for FE Warren, NAS Fort Worth and AFP 4	Tissa H Illangasekare, Colorado School of Mines	Managing Land Use Controls – Implementing AFRPA LUC/IC Management Guidance	Art Ditto, AFRPA	Protocol for Controlling Groundwater Movement by Phytostabilization	Rafael Vazquez, AFCEE/ERS
1350 – 1415	Source Zone Characterization Approaches Including Contaminant Mass Flux	Michael D Annable & Kirk Hatfield, University of Florida	Planning Risk Assessments	Kathi Wurzel, New Fields	One Generation Plants a Tree - Another One Gets the Shade	William A Plaehn, Parsons, Inc.
1415 - 1440	In Situ Chemical Oxidation: Performance, Practice, and Pitfalls	Richard A Brown, Environmental Resources Management, Inc.	Risk Screening	Kathi Wurzel, New Fields		
1440 - 1455	BREAK, Rapids Terrace					
1455 - 1520	Excavation and Dewatering for Source Removal at the Former Stapleton International Airport in Denver, Colorado	Doug Downey, Parsons, Inc.	Site Specific Risk Assessment	Kathi Wurzel, New Fields	Alternative Landfill Remediation – Ready for Air Force Use	V L Hauser, Mitretek Systems Inc.
1520 – 1545	Innovative DNAPL Source Remediation Technologies	Hans Stroo, RETEC	RPMS: Is Formal Dispute Resolution the Best Option for Retaining Control?	Doris A Anders, AFCEE/ERS; Mark F. Shibata, Montgomery Watson-Harza	Alternative Landfill Technologies: A State Perspective	Charles Johnson, ITRC Team Leader
1545 – 1610	In-Situ Thermal Remediation	Eva Davis, US EPA	Risk Assessment Report Review	Samuel L Brock, AFCEE/ERS	US EPA Alternative Cover Assessment Program (ACAP)	Bill Albright, Desert Research Institute
1610 – 1635	Anaerobic Bioremediation of Chlorinated Solvent Source Areas - What can be achieved?	Bob Borden, Solutions - IES	Use of Risk Assessment Results	Lee Shull, Montgomery Watson-Harza	Impact of Landfill Closure Designs on Long-Term Natural Attenuation of Chlorinated Hydrocarbons	Doug Downey & John Hicks, Parsons, Inc.
1635 – 1705	Enhanced DNAPL Recovery From Fractured Limestone Air Force Plant NO. 4, Fort Worth, Texas	Richard Wice, Shaw Group	Question and Answer Panel	Samuel L Brock, AFCEE/ERS, Moderator	The SERDP and ESTCP Research Programs: How They Can Work for You	Andrea Leeson, Cleanup Program Manager, SERDP/ESTCP
1705 – 1930	Opening Reception and Exhibit Hall Coronado Ballroom Four Points Sheraton Hotel					

2003 AFCEE Technology Transfer Workshop, Four Points Sheraton Hotel

Wednesday, 26 February 2003, AM Session (0800 – 1130 Hours)

0730 – 0800	Morning Coffee, Rapids Terrace					
Room	Rio Grande		Santa Fe		Taos	
Session	Enhanced Bioremediation of Chlorinated Solvents - Part I		Restoration and Its Future with Reduced Cleanup Levels		Remedial Process Optimization (RPO) – Guidance and Implementation	
Chair	<i>Jim Gonzales, AFCEE/ERS</i>		<i>Jesse Perez, AFCEE/ERS</i>		<i>John Gillespie, AFCEE/ERS</i>	
0800 – 0825	<i>Enhanced Bioremediation of Chlorinated Solvents: Status Report</i>	Andrea Leeson, Cleanup Program Manager, SERDP/ESTCP	<i>Transformation of the Cleanup Program to Performance-Based Principles</i>	LtCol Jeff Cornell, SAF/IEE	<i>Air Force RPO Policy and DERP Guidance</i>	Mike Larson, HQ USAF/ILEVR
0825 – 0850	<i>Aqueous or Slow Release? - Considerations for Substrate Selection</i>	Kent S Sorenson, North Wind Inc.	<i>Managing Cleanup Performance in A Changing Environment</i>	Mario E Ierardi, AFRPA	<i>ITRC Sponsored RPO Guidance Development</i>	Tom O'Neill, ITRC
0850 – 0915	<i>Results of an Anaerobic Dechlorination Survey</i>	Bryan Harre, Naval Facilities Engineering Service Center	<i>An Overview of TCE</i>	John DeSesso, Mitretek Systems, Inc.	<i>AFMC RPO Implementation Process</i>	Amie Price, Booz Allen Hamilton
0915 – 0940	<i>Strategies Using Vegetable Oil For Enhanced Bioremediation of Chlorinated Solvents</i>	Bruce M Henry, Parsons, Inc.	<i>RDX in Groundwater At US Army Facilities - An Overview</i>	Ira P May, US Army Environmental Center	<i>RPO Inventory and Prioritization Tool</i>	Dave Parse, Earth Tech
0940 – 1005	<i>Use of Edible Oils for Stimulating Reductive Dechlorination - Laboratory and Field Results</i>	Bob Borden, Solutions - IES	<i>Modeling the DOD Environmental Cleanup Negotiating Process</i>	Teresa Pohlman, Pentagon Renovation Office	<i>Defense Logistics Agency Restoration Program Optimization Policy</i>	LtCol Dan Welch, HQ DLA/ DDS-E
1005 - 1020	BREAK, Rapids Terrace and Rio Grande					
1020 – 1045	<i>Enhanced CAH Bioremediation with Soluble Carbohydrates (Molasses, Corn Syrup and Whey): Case Study, Protocol, Current State of Practice and Federal Applications</i>	Chris Lutes, ARCADIS	<i>Overview of DOD Perchlorate Efforts</i>	Bryan Harre, Naval Facilities Engineering Service Center	<i>FY03 RPO Schedule and Update on RPO Implementation at PACAF</i>	Mark Ingoglia & Dave Hertzog, HQ PACAF, AK
1045 – 1110	<i>Remedial Performance of Organic Mulch Biowalls at Two Geochemically Distinct Sites</i>	Patrick Haas, Mitretek, Inc.	<i>Remediation Technologies to Remove/Destroy Perchlorate from Groundwater and Waste Water</i>	Bill Guarini, Envirogen, Inc.; Ed Coppola, Applied Research Associates, Inc.	<i>FY02 California RPO Initiative</i>	Rod Whitten, AFRPA
1110 - 1135	<i>Panel Discussion</i>	Jim Gonzales, AFCEE/ERS, Moderator	<i>Making Sense of the Perchlorate Action Level Debate</i>	Richard C. Pleus, Intertox, Inc.	<i>RPO Panel Discussion</i>	John Gillespie, AFCEE/ERS, Moderator
1135 - 1300	LUNCH – ON YOUR OWN, DOWNTOWN SAN ANTONIO					

2003 AFCEE Technology Transfer Workshop, Four Points Sheraton Hotel

Wednesday, 26 February 2003, PM Session (1300 – 1705 Hours)

Room	Rio Grande		Taos		Santa Fe	
Session	Enhanced Bioremediation of Chlorinated Solvents - Part II		Remedial Process Optimization (RPO) – Lessons Learned		Lessons Learned from Permeable Reactive Barrier (PRB) Applications	
Chair	Jim Gonzales, AFCEE/ERS		LtCol Daniel Welch, HQ DLA/DDS-E		Don Ficklen, AFCEE/ERS	
1300 - 1325	<i>Innovative Applications of Aqueous and Slow Release Electron Donors: Two Case Studies</i>	Kent S Sorenson, North Wind, Inc.	<i>Restoration Program Optimization - Matrix and Metrics</i>	LtCol D Welch, HQ DLA/DDS-E	<i>Performance Monitoring of a ZVI PRB Installed With Biopolymer Slurry</i>	Cynthia Crane, HydroGeoLogic, Inc.
1325 – 1350	<i>Bioremediation of Solvent Sites Using Direct Hydrogen Delivery</i>	Charles J Newell, Groundwater Services, Inc.	<i>Case Study: Effects of Shutting Down a Pump & Treat System at Air Force Plant 4</i>	Dave Parse, Earth Tech	<i>Installation of Diverse Sand/ZVI Mixtures in the Construction of a Permeable Reactive Barrier at Kelly AFB</i>	Aiman Naguib, Williams Environmental Services, Inc.
1350 – 1415	<i>Source Zone Remediation Using Biodegradation</i>	Charles J Newell, Groundwater Services, Inc.	<i>Case Study: Optimizing a High-volume Pump & Treat System at Air Force Plant 44</i>	Jim Hatton, Earth Tech	<i>Bioremediation of MTBE Utilizing Permeable Reactive Barrier Technology - 3-Year ESTCP Demonstration at Port Hueneme, CA</i>	Karen Miller, Naval Facilities Engineering Service Center
1415 - 1440	<i>Principles and Practices Manual for Enhanced Anaerobic Bioremediation</i>	Ross Miller, Parsons, Inc.	<i>Use of RPO Derived Information for Regulatory Decision Making</i>	Neal Thompson, US EPA Region 10	<i>Longevity and Hydraulic Performance of Permeable Barriers at Four DoD Sites</i>	Arun Gavaskar, Battelle Memorial Institute
1440 – 1455	BREAK, Rapids Terrace and Rio Grande					
1455 – 1520	<i>Abiotic Reactions May Be The Most Important Mechanism in Natural Attenuation of Chlorinated Solvents</i>	John Wilson, US EPA	<i>Phase I to Phase III Implementation Tracking through the Use of a Matrix</i>	Dave Hertzog, 611th, Elmendorf AFB, Alaska	<i>The Application of the PRB Technology at Two Sites: Lessons Learned after 7 Years of Performance Monitoring</i>	Bob Puls, US EPA/ NRMRL-Ada
1520 – 1545	<i>Reactive Minerals in Aquifers: Formation Processes and Quantitative Analysis</i>	Richard T Wilkin, US EPA			<i>Biowall at Altus AFB, OK</i>	Jason Gorden, AFCEE/ERD
1545 – 1610	<i>How Field Scale Evidence of Abiotic CAH Degradation Processes Can or Should Impact Your Remedy Planning and Implementation Efforts</i>	Leigh Alvarado Benson, Parsons, Inc.	<i>Innovative Cost Effective LTM Techniques</i>	Mike Raabe, Eielson AFB	<i>Electrolytic Permeable Reactive Barriers (e-barriers)</i>	Tom Sale, Colorado State University
1610 – 1635	<i>Geomicrobiological Treatment for Engineered and Natural Attenuation of Chlorinated Organics</i>	Jess Everett, Rowan University	<i>RPO Implementation at a PCB & Lead Contaminated Site With More Than 50,000 Potential OE Materials</i>	Manish M Joshi, Earth Tech	<i>Comparison of Pneumatically Injected ZVI and Standard ZVI PRBs for Contaminant Barriers</i>	Thomas J Simpkin, CH2M HILL
1635 – 1705	<i>Bioaugmentation: From the Start, to the State-of-the-Art</i>	Rob Hinchee & Bruce Alleman, Battelle Memorial Institute	<i>Developing an Exit Strategy to Facilitate the Remedial Decision Process: How will you know when you get there, if you don't know where you're going?</i>	Kinzie Gordon & Leigh Alvarado Benson, Parsons, Inc.	<i>Discussion of A Trenchless Construction Method for Placing Deep PRB Walls</i>	Grant Hocking, GeoSierra, LLC
1705	WORKSHOP ADJOURNS FOR THE DAY					

2003 AFCEE Technology Transfer Workshop, Four Points Sheraton Hotel

Thursday, 27 February 2003, AM Session (0800 – 1130 Hours)

0730 – 0800	Morning Coffee, Rapids Terrace					
Room	Rio Grande		Taos		Santa Fe	
Session	Home on the Range - Meeting DOD's Environmental Challenges on Operational Air Force Ranges		Including Vapor Intrusion Analysis in Your Remediation Program		How to Conduct Pilot Studies to Ensure Final Remedy Success	
Chair	Chung Yen, AFCEE/ERS		Dr. Douglas Cox, AFIERA		Patrick Haas, Mitretek Systems, Inc.	
0800 – 0825	Military Munitions Response Program Policy	LtCol Jeff Cornell, SAF/IEE; Bill Barry, ILEV-R	Vapor Intrusion – Background and Theory; Federal and State Regulatory Drivers Conceptual Site Model – Applicability and Limitations Demonstration of Vapor Intrusion Model Case Studies – Lessons Learned from High Profile Sites with Vapor Issues	Tom Robertson & Josh Dunbar, Environmental Quality Management	The AFCEE Performance Monitoring Technology Matrix	Farrukh Ahmad, Groundwater Services, Inc.
0825 – 0850	AFCEE Technology Initiatives for Ranges	Don Ficklen & Jim Montgomery, AFCEE/ERS			High-Resolution Methods for Characterization of Spatial Variations in Hydraulic Conductivity in Unconsolidated Formations	Jim Butler, Kansas Geological Survey
0850 – 0915	Particulate and Molecular Lead Processing Technologies at Small Arms Ranges	Arun Gavaskar, Battelle			Collection of Design Data: Site Characterization for Permeable Reactive Barriers	Robert Puls, US EPA/NRMRL-Ada
0915 – 0940	Resource Capability Evaluation Model Pilot Test: Measuring the Adequacy of Air, Land, Water, and Spectrum Resources to Meet Operational Requirements	William Rowe, Booz Allen Hamilton			Bioventing - Please keep it simple!	Ross Miller, Parsons, Inc.
0940 – 1005	Enhancing Range Sustainability Through Innovative Technology Application	Mike Warminsky, AMEC ENV			Air Sparging - How to Avoid Blowing Money in the Ground	Rick Johnson, Oregon Graduate Research Institute
1005 – 1020	BREAK, Rapids Terrace and Rio Grande					
1020 – 1045	Large Range Clearance Issues and Answers – The Kaho'olawe Experience	Tom McCabe, Parsons, Inc.	How New AFIERA/RSRE Tools Help You Understand Vapor Intrusion: An Introduction and Facilitated Discussion	Skylar Browning & Elaine Specht, WPI	Differentiating In Situ Oxidation from In Situ Dilution or Displacement	Patrick Haas, Mitretek Systems, Inc.
1045 – 1110					How to Avoid Getting "Burned" on a Thermal Remediation Project	Eva Davis, US EPA
1110 – 1130	Panel Discussion	Chung Yen, AFCEE/ERS, Moderator			Panel Discussion	Patrick Haas, Mitretek Systems, Inc., Moderator
1130 – 1300	LUNCH – ON YOUR OWN, DOWNTOWN SAN ANTONIO					

2003 AFCEE Technology Transfer Workshop, Four Points Sheraton Hotel

	Thursday, 27 February 2003, PM Session (1300 – 1700 Hours)					
Room	Rio Grande		Taos		Santa Fe	
Session	Unexploded Ordnance (UXO) Safety Awareness		Pump-and-Treat - How to Optimize Your System		Road Trip - How to get to Site Closure and Land Transfer	
Chair	Dave Brown, AFCEA		Jim Montgomery, AFCEE/ERS		Ian Smith, AFCEE/ERD	
1300 – 1325	Munitions Terms, Explosives Hazards, & UXO Site Visits	Dave Brown, HQ AFCEA	Pump-and-Treat Systems Are A Fact of Life - How Do We Optimize Their Effectiveness?	Cannon Silver & John W. Anthony, Parsons, Inc.	Using Web-Enabled GIS to Track Land-Use Controls and Property Transfer	Gaby Atik – FPM; Michael McDermott, AFRPA
1325 – 1350	UXO Recognition	SSgt Reeves, 37 CES, EOD Flt			Performance and Protectiveness Reviews: The Link to Property Transfer	Mario E. Ierardi, AFRPA
1350 – 1415	UXO Safety	SSgt Griffin, 433 CES, EOD Flt			Site Closure and Land Transfer: Case Studies	Paul J Favara, CH2MHill
1415 – 1430	BREAK, Rapids Terrace and Rio Grande					
1430 – 1700	CLOSING PANEL DISCUSSION – CORONADO BALLROOM, SHERATON FOUR POINTS HOTEL					
	What Should Prevail in Driving Cleanup Actions – Politics, Regulatory Requirements, or Modern Science?					
	Panelists					
	LtCol Jeff Cornell, SAF/IEE					
	Teresa Pohlman, Pentagon Renovation Office					
	Nancy Wentworth, Director, Quality Staff, US Environmental Protection Agency					
	Ross Miller, Parsons, Inc.					
	Richard C Pleus, Intertox, Inc. (Invited)					
	Patrick Haas, Mitretek, Inc.					
	Andrea Leeson, Cleanup Program Manager, SERDP/ ESTCP					
1700	WORKSHOP ADJOURNS					